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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,042	10/21/2003	Valentino Campagnolo	CAM3-PT015.1	3495
3624	7590	08/11/2004	EXAMINER	
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			JOHNSON, VICKY A	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,042	Applicant(s) CAMPAGNOLO ET AL.	
	Examiner Vicky A. Johnson	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/820,360.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/22 & 12/15</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/820360, filed on March 29, 2001.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10 it is unclear what is meant by "continuously performed"; is it referring to the steps a-d repeating at every shift command, or that the steps a-d will be carried out over and over without stopping, even when not shifting the gears?

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Art Unit: 3682

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukuda (US 6,676,549).

Fukuda teaches a process for controlling when gear shifting occurs in a transmission of a cycle having at least one gear sprocket, the process comprising the steps of: assigning said at least one gear sprocket at least one given angular position in which shifting is facilitated (col. 6 line 65-col. 7 line 7); providing a sensor (18) to detect said angular position of said at least one gear sprocket in which shifting is facilitated (col. 5 lines 10-14); and selectively activating said sensor according to a command request to initiate a shift (col. 5 lines 54-57, it is an inherent feature that the controller would activate the sensor according to a command request to initiate a shift, since the sensor data is used to evaluate the rotation of the sprockets to determine if and when to activate the derailleur, col. 5 lines 14-25).

Re claim 2, Fukuda discloses the steps of preventing a shift when said sensor detects that said gear sprocket is not in the angular position in which shifting is facilitated (col. 5 lines 10-20) and allowing a shift when said sensor detects that said gear sprocket is said angular position in which shifting is facilitated (col. 5 lines 20-25).

Art Unit: 3682

Re claim 3, Fukuda discloses the step of assigning includes assigning said at least one gear sprocket at least one given angular position corresponding to at least one set of teeth of said gear sprocket (col. 6 line 65-col. 7 line 7).

Re claim 4, Fukuda discloses the steps of shifting a transmission element with respect to said at least one gear sprocket when said sensor detects said angular position in which shifting is facilitated (col. 2 lines 11-20).

Re claim 5, Fukuda discloses a system for controlling when gear shifting occurs in the transmission of a cycle, the system comprising; at least one gear sprocket having at least one angular position in which shifting is facilitated (col. 6 line 65-col. 7 line 7); at least one sensor (18) for detecting the angular position in which shifting is facilitated and generating a corresponding signal; and a control unit (276) for activating said sensor according to a command request.

Re claim 6, Fukuda discloses a transmission element (chain), wherein said control unit (276) is configured for controlling, in response to the corresponding signal, a change in position of the transmission element with respect to the at least one gear sprocket when the sensor detects the angular position in which shifting is facilitated (col. 2 lines 11-20).

Re claim 7, Fukuda discloses the at least one gear sprocket is associated to a crank axle of the cycle (col. 1 lines 9-22), and wherein said at least one facilitating angular position corresponds to at least one set of teeth of said gear sprocket (col. 6 line 65-col. 7 line 7).

Re claim 8, Fukuda discloses at least one sensor (18) is associated to one of a crank axle (col. 1 lines 9-22) of said cycle and a tensioning element (500).

Re claim 9, Fukuda discloses a method for controlling gear shifting on a bicycle having a plurality of sprockets (28) with at least one sprocket including teeth with a sequence of differentiated geometries which define facilitating portions (col. 6 line 65-col. 7 line 7) on said gear sprocket, the teeth carrying a transmission element (200), the method comprising the steps of: a) detecting a processing signal representative of an affirmative shift command (col. 2 lines 11-25); b) detecting an angular position of the at least one gear sprocket in response to the processing signal (col. 2 lines 11-25); c) comparing the angular position of the at least one gear to the angular position of the facilitating portions of the at least one gear (col. 6 line 65-col. 7 line 7); d) shifting the transmission element from the at least one gear sprocket to another gear sprocket if the detected angular position of the at least one gear corresponds to one of the facilitating portions (col. 5 lines 20-25), wherein steps (b)-(d) are performed only after step (a) (it is an inherent feature that the steps b-d will occur after an affirmative shift command).

Re claim 12, Fukuda discloses detecting the angular position of said at least one gear (col. 2 lines 11-25); controlling change of position of said element for transmitting motion with respect to said at least one gear depending on the detected angular position (col. 5 lines 20-25); providing sensor means (18) for detecting the angular position of said at least one gear 28; and selectively activating said sensor means according to a command request for changing the position of said element for transmitting motion with respect to said at least one gear (col. 5 lines 54-57, it is an

Art Unit: 3682

inherent feature that the controller would activate the sensor according to a command request to initiate a shift, since the sensor data is used to evaluate the rotation of the sprockets to determine if and when to activate the derailleur, col. 5 lines 14-25).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda (US 6,676,549) in view of Fey et al (5,483,137).

Fukuda discloses a system for controlling gear shifting in a transmission of a cycle comprising at least one gear wheel (28) on which is engaged a transmission element (200) that performs transmission of motion as a result of its advance in a pre-determined direction; the gear shifting being carried out by changing the position of engagement of said transmission element (200) with respect to said at least one gear wheel (28), wherein said at least one gear wheel has at least one given angular position in which the shifting of said element for transmitting motion is facilitated (col. 6 line 65- col. 7 line 7), said system comprising: at least one sensor (18) for detecting the position of said at least one gear wheel (28) for generating a respective signal; a control unit (276) for controlling, starting from said respective signal, the change of the position of said element for transmitting motion (col. 2 lines 19-25); and said control unit being configured for preventing shifting of said at least one gear wheel when the gear wheel is

Art Unit: 3682

not in an angular position corresponding to said at least one given angular position, and then allowing change of position of said transmission element when said at least one gear wheel is rotated to a next angular position corresponding to said at least one given angular position (col. 5 lines 10-25).

Fukuda does not disclose at least one switch for selective activation of said at least one sensor according to a command for changing the position of said element for transmitting motion with respect to said at least one gear wheel.

Fey et al teaches the use of a switch (30a or 30b to initiate the shifting of the chain to a higher or lower gear) for selective activation of said at least one sensor (the sensor detects the position and sends a signal to the monitoring unit 40) according to a command for changing the position of said element for transmitting motion with respect to said at least one gear wheel (col. 2 lines 7-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Fukuda to include a switch as taught by Fey et al in order to manually input the desired gear.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Art Unit: 3682

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-34 of U.S. Patent No. 6,634,971. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are obvious variants in the breadth and scope of the claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


6,659,895 Fukuda (motion sensor)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (703) 305-3013. The examiner can normally be reached on Monday-Thursday (7:00a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vicky A. Johnson
Examiner
Art Unit 3682

vaj